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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,213	02/17/2004	Yoshihisa Takatsu	JP920020219US1	9485

7590 12/11/2007
H. Daniel Schnurmann
Intellectual Property Law
IBM Corporation, Dept. 18G Building 300-482
2070 Route 52
Hopewell Junction, NY 12533

EXAMINER

PHAN, MAN U

ART UNIT	PAPER NUMBER
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2619

MAIL DATE	DELIVERY MODE
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12/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**supplemental
Notice of Allowability**

Application No.

10/780,213

Examiner

Man Phan

Applicant(s)

TAKATSU ET AL.

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communications filed 8/22/2007.
2. ☒ The allowed claim(s) is/are 1-18, 22 (claims renumbered as 1-1-19 respectively).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Reasons for allowance

1. This communication is in response to applicant's 08/22/2007 amendment in the application of Takatsu et al. for the "Communication control apparatus and method for searching an Internet Protocol address" filed 02/17/2004. This application claims foreign priority based on the application 2003/121263 filed April 25, 2003 in Japan. The proposed amendment has been entered and made of record. Claim 1, 2, 8-10, 16-18, 22 have been amended. The claims have been amended to better point out and more distinctly claim subject matter comprising the invention.

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee. Authorization for this examiner's amendment was given in a telephone interview with Mr. H. Daniel Schnurmann (Agent Reg. #35791) on Dec. 04, 2007.

3. The application has been amended as follows:

IN THE CLAIMS:

- I. Claim 19: Cancel
- Claim 20: Cancel
- Claim 21: Cancel

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Claims 1-18, 22 are allowable as evident by applicant's amendment (Claims are renumbered as 1-19 respectively).
6. The following is an examiner's statement of reasons for allowance: The prior art of record fails to disclose or suggest a communication control apparatus, comprising: a storage device for storing search information to determine a subsequent transfer route for a packet received by way of its destination address; and a route search device to search for a transfer route for said packet received based on said search information, wherein said search information is associated with a tree structure, each node in said tree structure having at least one entry, a mask prefix associated with said at least one entry, wherein each entry includes information on the number of bits of said mask prefix associated therewith, and a sort key, and wherein the number of bits of said sort key is set to be greater than or equal to the longest mask length amongst the mask lengths of all said mask prefixes; a bit string divided into an upper side bit string field and a lower side bit string field, wherein the upper side bit string field of each of said sort keys is to match said mask prefix associated with an entry having said sort key wherein entries are assigned to predetermined nodes of said tree structure based on the sort order of their sort keys; each node having an entry list in which multiple entries included therein are sorted based on their sort keys; and each node except leaf nodes are linked via each branch to relate each entry in the

entry list of said node to each node at the next lower hierarchy, as specifically recited in the claims.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Man U. Phan whose telephone number is (571) 272-3149. The examiner can normally be reached Monday through Friday from 6:00 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel, can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about

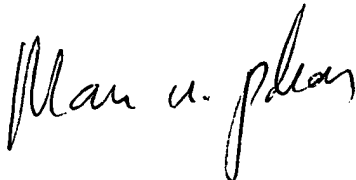
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the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at toll free 1-866-217-9197.

Mphan.

Dec. 05, 2007

A handwritten signature in cursive script that reads "Man u. phan".

**MAN U. PHAN
PRIMARY EXAMINER**